

CLAIMS

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1. A method for reducing the allergenicity of a food comprising treating the food with a super critical fluid or critical liquid gas.

2. The method of claim 1 wherein the food is treated with super critical carbon dioxide or liquid nitrogen.

3. The method of claim 2 wherein the food is treated with super critical carbon dioxide.

4. The method of claim 2 wherein the food is treated with liquid nitrogen.

5. The method of claim 2 wherein the food comprises one or more ingredients selected from the group consisting of wheat, egg, corn, pork, soybean, tomato, orange, seafood, fish, milk protein, spices, condiments, and nuts.

6. The method of claim 1 wherein the food comprises wine.

7. The method of claim 5 wherein the food comprises one or more ingredients selected from the group consisting of wheat, corn, soybean, spices, and nuts.

8. The method of claim 7 wherein the food is ground into a powder before treatment.

9. The method of claim 7 wherein the food comprises wheat.

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10. The method of claim 2 wherein the food comprises fat and wherein the fat is not removed from the treated food.
11. The method of claim 7 wherein the food comprises nuts.
12. The method of claim 11 wherein the food comprises peanut.
13. The method of claim 12 wherein the food comprises chopped peanuts, peanut flour, or peanut paste.
14. The method of claim 13 wherein the food comprises peanut flour and whereby the flour is so degraded by the treatment that there is an at least about 50% reduction in the particle size of the flour.
15. The method of claim 14 wherein there is an at least about 65% reduction in the particle size of the flour.
16. The method of claim 13, wherein the food comprises at least partially defatted peanut flour.
17. The method of claim 5 wherein the food comprises one or more ingredients selected from the group consisting of pork, tomato, soybean, orange, seafood, and fish.
18. The method of claim 17 wherein the food is diced or finely chopped before treatment.
19. The method of claim 5 wherein the food comprises one or more ingredients selected from the group consisting of egg and milk products.

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20. The method of claim 19 wherein the food comprises powdered egg or powdered milk or a concentrated liquid product.

21. The method of claim 20 wherein the food comprises at least partially defatted powdered milk.

22. The method of claim 2 wherein the food comprises starch and whereby the starch is so degraded by the treatment that there is an essential absence of birefringent starch granules upon polarizing microscopic examination.

23. The method of claim 13 wherein peanut allergens as measured using ELISA or RIA are decreased at least about 10-fold after treatment.

24. The method of claim 23 wherein peanut allergens are decreased at least about 100-fold after treatment.

25. The method of claim 24 wherein peanut allergens are decreased at least about 285-fold after treatment.

26. A method for human allergy testing comprising contacting a sample containing a suspected allergen with patient serum and quantitating the ability of the sample to bind IgE in the serum, wherein the quantity of allergen and degree of allergenicity is detected as the amount of IgE-binding.

27. The method of claim 26 wherein the serum is from a patient known to be sensitive to the allergen.

28. The method of claim 27 wherein the sample is a food.

29. The method of claim 28 wherein the food comprises milk protein.

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30. The method of claim 28 wherein the food comprises peanut allergen.
31. The method of claim 26 wherein the antigen binding content of the sample is also measured in an immunoassay using serum from an animal that has been immunized with the allergen.
32. A method of reducing the fat in peanut butter without the addition of water comprising:
- (a) adding at least about 1/2% by weight of high phosphatidyl choline lecithin; and
 - (b) treating the peanut ingredients with liquid nitrogen or super critical carbon dioxide.
33. The method of claim 32 where in the total fat content of the peanut butter is reduced to less than 26%.
34. A reduced fat peanut butter prepared by the method of claim 32.
35. A reduced fat peanut butter composition comprising:
- 0 to 80% sugar;
 - 0 to 32% liquid nitrogen treated peanut oil;
 - 4 to 55% liquid nitrogen treated peanut paste;
 - 3 to 55% liquid nitrogen treated peanut flour;
 - 0 to 55% of a dairy component; and
 - at least about 1/2% high phosphatidyl choline lecithin.
36. The peanut butter composition of claim 35 wherein the total fat content is less than about 33%.

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37. The peanut butter composition of claim 36 wherein the total fat content is less than about 22%.

38. A method of making a chocolate composition bakery coating without the use of a conch comprising:

(a) preparing a chocolate composition comprising supercritical carbon dioxide or liquid nitrogen treated cocoa, sugar which has been refined to be equivalent to 10X sugar wherein the sugar does not contain corn starch, and at least about 1/2% by weight high phosphatidyl choline lecithin; and

(b) extruding the chocolate composition through a screw type extruder.

39. A chocolate composition bakery coating prepared according to the method of claim 38.

40. The coating of claim 39 wherein the total fat content is less than about 25%.

41. The coating of claim 40 wherein the total fat content is less than about 24%.

42. A method of treating fruit to render the fruit essentially hypoallergenic and essentially free of pathogenic microorganisms comprising treating the fruit with a super critical fluid or critical liquid gas.

43. The method of claim 42 wherein the fruit is treated with super critical carbon dioxide or liquid nitrogen.

44. The method of claim 43 wherein the fruit is treated with super critical carbon dioxide.

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45. The method of claim 43, wherein the fruit is treated with liquid nitrogen.

46. The method of claim 42 wherein the fruit is selected from strawberries and peaches.

47. The method of claim 46 wherein the fruit is strawberries.

48. A method of treating meat to render the meat essentially hypoallergenic and essentially free of pathogenic microorganisms comprising treating the meat with a super critical fluid or critical liquid gas.

49. The method of claim 48 wherein the meat is treated with super critical carbon dioxide or liquid nitrogen.

50. The method of claim 49 wherein the meat is treated with super critical carbon dioxide.

51. The method of claim 49 wherein the meat is treated with liquid nitrogen.

52. The method of claim 48 wherein the meat is selected from pork, lamb, beef, and poultry.

53. The method of claim 52 wherein the meat is beef.

54. The method of claim 53 wherein the meat is ground beef.

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55. A chocolate or chocolate style composition having from about 10% to about 28% total fat comprising:

- (a) cocoa powder;
- (b) chocolate liquor;
- (c) from about 4% to about 25% by weight of a low molecular weight and low caloric density fat;
- (d) one or more sweeteners;
- (e) an optional dairy component; and
- (f) cocoa butter lecithin.

56. The composition of claim 55 wherein the cocoa powder and chocolate liquor have been rendered hypoallergenic by treatment with a super critical fluid or critical liquid gas.

57. The composition of claim 55 comprising from about 0.5% to about 1% by weight of cocoa butter lecithin.

58. The composition of claim 57 additionally comprising about 0.1 to about 0.6% of soy lecithin wherein the soy lecithin comprises at least about 32% phosphatidyl choline.

59. The composition of claim 55 wherein the fat is up to 55% nutritionally available.

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60. A chocolate or chocolate style composition having from about 10% to about 28% total fat comprising:

- (a) cocoa powder;
- (b) chocolate liquor;
- (c) from about 4% to about 25% by weight of a low molecular weight and low caloric density fat;
- (d) one or more sweeteners;
- (e) an optional dairy component; and
- (f) soy lecithin wherein the soy lecithin comprises at least about 32% phosphatidylcholine.

61. A method of making cocoa butter lecithin comprising the steps of:

- (a) adding water to minimally or non-deodorized cocoa butter;
- (b) separating the water and fat layers from the gum layer; and
- (c) vacuum drying the gum layer.

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